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THE GENESEE FARMER.

SATURDAY, MARCH 10, 1838.

## BARLEY.

The increasing attention which is paid to the culture of barley—the profits of the crop—its value as a preparative for wheat—and the favor which it finds as a substitute for wheat in making bread, is entitling it to a high rank among the grains cultivated in this country.

According to Loudon, there are six species and subspecies of this grain in cultivation, besides varieties; but the following figures copied from his Ency. of Ag. exhibit the most important of these:

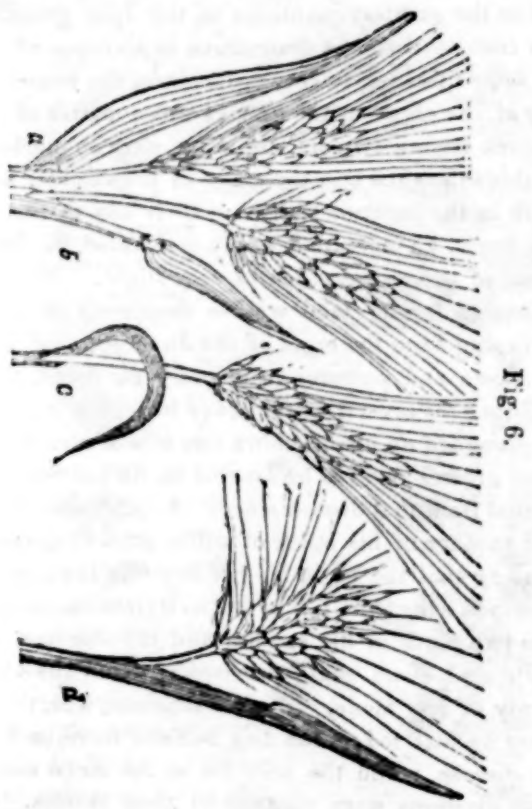

Fig. 6.

*Hordeum vulgare*, or Spring barley, (fig. 6, *a*) is distinguished by its double row of beards or awns, standing erect, and its thin husk, which renders it favorable for malting. This is the sort commonly grown in the southern and eastern districts of both England and Scotland.

*Hordeum cæleste*, or Siberian barley, is a variety of early or spring barley, much grown in the north of Europe, having broader leaves, and reckoned more productive than the other.

*Hordeum hexastichon*, (fig. 6, *b*) Winter barley, or as it is called in Scotland, square barley, is a variety known by having six rows of grains, large and thick skinned, and for that reason not considered as favorable for malting.

*Barley bigg*, is a variety of winter barley, known by its always having six rows of grains, by the grains being small and thick skinned, and being earlier than the preceding or parent variety. It is hardy and chiefly grown in Scotland.

*Hordeum distichon*, (fig. 6, *c*) common or long eared barley, is known by its long spike or ear flatted transversely, and its long awns. It yields well, though some object to it because the ears being long and heavy, they think it apt to lodge.

*Hordeum distichon nudum*, or Naked barley, is known by the awns falling easily, and when ripe almost of themselves from the chaff, when the ear somewhat resembles wheat and by some is called wheat barley. It is spoken highly of in the British Husbandry, as being hardy in growth, strong in the stem, tillering with great vigor, and producing abundant crops of fine grain. By some this variety is considered the same as spelt wheat, which indeed it strongly resembles. It is six rowed.

*Hordeum Zeocriton*, (fig. 6, *d*) sprat or battledore barley, is known by its low stature, coarse straw, short broad ears, and long awns. It is but little cultivated.

New varieties of barley are produced in the same manner as in wheat, by crossing, and some of the most celebrated kinds, such as the Chevalier, Annat, &c. have originated in this way.

In this country but two varieties are sown, and these are familiarly distinguished as the two and the six rowed. They are always sown in the spring; no kind in the United States being able to endure the severity of our winters, or at least we know of no variety which has been attempted here as a winter or fall sown grain. The comparative value of the two varieties does not seem to have been fully decided by our farmers, some preferring one kind and some the other. That the two rowed will make the most flour from a given number of pounds—that its thin skin renders it more suitable for malting—and that it is rather less liable to be affected by smut than the six rowed seems to be generally conceded; but its productiveness is much disputed, and it would seem with some reason, as the greater length of the ear in the two rowed, would hardly compensate for the greater number of rows in the other variety. So far as we are able to judge, however, from the opinions of experienced farmers, the preference, for the reasons assigned, is becoming more decided in favor of the two rowed.

Barley of every variety requires a rich, friable and mellow soil, which retains a moderate quantity of moisture, but without approaching to that which may be denominated wet; as for instance land which contains from 50 to 65 per cent of sand, and the remainder chiefly clay. though in situations where the climate is usually moist during the summer, it may be grown where sand is in the soil in a larger proportion. It succeeds best in what farmers term a rich deep loam, and with too much sand, or too much clay, will not produce good crops. With the single exception, that it will succeed with less lime than wheat, soils that will produce good wheat, will also grow barley to advantage.

It is probable that more barley is grown in the state of New-York than in all the rest of the United States, and the section in which it is produced in the greatest abundance and perfection is the northern slope of Western New-York. The ranges of towns which mark the geological separation of the argillaceous and limestone districts have hitherto yielded the greatest quantities of barley, and in them the culture is still rapidly extending.—On this slope it is found that soils on which winter wheat without extra care in cultivation, is very liable to freeze out in the spring, will produce heavy crops of barley, and hence clover and barley on many farms have taken the place of clover and wheat, affording about the same profit in the crop and at a less expense of labor. This is particularly the case in the country reaching from the Oneida to the Canandaigua lakes, including a part of Madison, Onondaga, Cayuga, Seneca, Yates and Ontario counties. On what is called the great limestone region of West New-York wheat will undoubtedly be preferred to barley as an article of culture, and it may be remarked as a general rule that on all soils where good barley can be grown, the suitable application of lime will ensure the success of wheat.

Perhaps there is no crop which demands and repays thorough working of the soil better than barley. The surface when fitted for the reception of the seed can hardly be made too fine; and the excellence of the crop is greatly depending on this point. A crop that occupies the ground so short a time as barley, spring wheat or oats, can hardly be benefitted by manure applied directly to them, unless in a thoroughly decomposed state, and hence it has been found by experience, that these crops succeed better after hoed or root crops to which the manure has been applied, or on turf lands that have received a top dressing of manure, and been carefully turned over in the fall of the year. The practice, somewhat extensively followed, of sowing winter wheat after barley, has led to the application of the manure to the barley crop; and perhaps where hoed crops cannot precede, this is the preferable way, though there is a great risk of too much straw, and the consequent lodging of the barley before ripening.

Barley should be sown in all cases, as soon as the ground is sufficiently dried and warmed to allow the seeds to germinate freely, and place them beyond the danger of injury from frost. Early frosts are more fatal to barley than to spring wheat or oats, and more injurious on wet or low lands than on dry or elevated ones. Particular attention must be paid to the dryness of the soil at the time of sowing. especially if naturally inclining to wet, as on such soils a wet spring will starve and destroy the plants. "Steeping the seed for twenty-four hours in soft water will cause the grain to germinate at the same time, and this, if it is sown at a late period is of more importance than may be generally imagined, as it is otherwise apt to ripen unequally." (Brit. Hus.) The finest, heaviest samples of all grains are usually obtained from early sown fields; and the difference in weight in barley and oats is from one-fifth to one-third in favor of early sowing. The smut is the only disease to which barley is subject, and this is rarely a serious injury, where the crop is grown on favorable soils, or the seed is put in, in good order. The worm which has proved so destructive to wheat in the eastern counties, has also injured the barley in a considerable degree; but in West New-York we have neither seen or heard of its appearance in this grain. The wire worm is sometimes very destructive to the crop when young, and in some seasons the meadow mole, so called, when the grain approaches maturity, makes sad havock by cutting down the plant to get at the ears, an effect more often observed when the barley is sown on turf leys, as they will rarely lie so close as not to leave numberless hiding places to the animal.

In sowing barley, as in most other crops, the universal experience of English farmers and the directions of the best works on agriculture, go to establish the fact, that less seed is required on rich lands than on poor, and that the quantity of seed used should be increased in proportion to the lateness of the sowing. In European countries from ten to eighteen pecks per acre is used; sixteen being the quantity usually recommended; in this country from two to three bushels is considered sufficient for the acre. The two rowed requires less than the six rowed, as it tillers more vigorously; and if sown too thick the plants will be weak and ripen irregularly.

Both the quantity and quality of the product depend on the soil, and the variety of the grain sown. In this country the average crop may be stated from thirty to thirty-five bushels per acre; in England the average produce is estimated at thirty-two bushels. Middleton says, the crop in that country varies from fifteen to seventy-five bushels an acre. The greatest crop we have seen mentioned in this country was sixty-five bushels per acre, and that was grown on land from which several crops had been taken in succession. In an experiment made by the East Lothian Agricultural Society upon the Chevalier, and a common sort of barley, both sown on a light gravelly soil, the produce of each per imperial acre, was—Chevalier 65 bushels 2 pecks of grain, weighing 56½ lbs. per bushel. Common barley gave 61 bushels 2 pecks of grain, and weighed 54½ lbs. per bushel.

Good qualities of the two rowed, will average about 52 or 53 lbs. per bushel; but the winter or six rowed varie-

ties will not exceed 43 to 46 lbs. The difference in malting is great; the experiments of Dr. Smith showing that a Winchester quarter of the several varieties, when malted, would produce the following quantities of proof spirits, viz:

English barley about 21¼ gallons,
Scotch barley...."..19¼ "
Scotch bigg....."..16¼ "

Or that English barley was 11 per cent superior to Scotch, and full 12 per cent above Scotch bigg, or winter barley.

The value of the several kinds of grain as an article of food, may be estimated from the following table. The quality of the flour being good household or family flour.

| | Wheat, if weighing 60 lbs. | of flour 48 lbs. | of bread 64 lbs. |
|---|---|---|---|
| Rye,.. | 54 | 42 | 56 |
| Barley, | 48 | 37½ | 50 |
| Oats | 40 | 22½ | 30 |

*(Brit. Hus.)*

The analysis of barley by Sir H. Davy, gives as contained in 100 parts:

79 per cent of mucilage or starch,
7 of saccharine matter,
6 of gluten or albumen.

Owing to the deficiency of this latter substance, or gluten, barley flour, like that of oats, buckwheat or potatoes, cannot be made into bread alone, but is mixed with wheat flour, or eaten in the form of cakes, when it is very wholesome and palatable.

Barley is perhaps one of the most difficult of the grains to secure in good condition; as if suffered to stand until the berry is perfectly dry and hard the head will frequently drop down, owing to the brittleness of the straw; and if cut too early the grain will shrink and lose in weight; and as it cannot when cut in an unripe state be put into barns or stacks without certain injury by heating, so in unfavorable weather, it is very apt to become of a black color, and lose the clear yellowish-white tinge so characteristic of good and well cured barley. The usually fine state of our atmosphere, and the clear dry air of our summers, renders the proper curing of barley a much less difficult task here, than in the moist climate and cloudy skies of Great Britain.

Before the introduction of threshing machines, barley, though easily threshed by horses or by hand, was with great difficulty prepared for market, owing to the obstacles offered in separating the awn from the kernel; and at the present time in many districts of England, and most parts of the continent, the *hummeling*, or freeing the berry from the beard, is one of the most laborious and difficult processes in the culture of barley.

Barley is extensively used in the fattening of pork, for which purpose it is admirably adapted when prepared by steaming or grinding; and in the districts where it is grown, is an excellent substitute for the corn crop, which for a few years past has been a partial failure. It is also used in large quantities in our breweries, and in too many instances takes the place of rye in the manufacture of whiskey. As a feed for horses it is not generally approved, but for fattening cattle, hogs and poultry, it is highly prized. Before the system of cutting straw, or manger-feeding was generally adopted in Great Britain, barley straw, owing perhaps to its being cut early, was used as food for cattle in preference to others, as cattle could eat it uncut more readily than the harder straws. Wheat or oat straw is now preferred when it is to be converted into chaff, or cut fine for mixing with hay or roots. There are varieties of barley found in the shops, Pearl and Scotch, both of which are prepared by divesting the kernel of its husk in mills resembling in some degree the rice mills of the south, and in the case of the pearl barley the grinding or rubbing is continued until the berry assumes a smooth round form. Few articles are more nutritious, or better adapted to the stomachs of the weak or the valetudinarian.

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### Artesian Wells—Inquiry.

To the correspondents of the Genesee Farmer:—Can any one inform me through the medium of the Genesee Farmer, where there are any Artesian wells, and if any in western New-York, what purpose they answer and what their cost.

V. B.

### THE HOOF-AIL.

From several communications that have been made to us, as well as from notices in different papers of the country, we learn that the disease among cattle called the Hoof-ail, or Foot-ail, is prevailing in some sections to a great extent, and will cause serious loss to farmers by its effect on their stocks of cattle. This disease has appeared at intervals of a few years in this country for a considerable number of years, though not always in the same districts; yet always with the same characters, and the same consequences to the herds of the farmer. We say in *this country*, for it does not appear from the best and latest foreign works on cattle, that any disease perfectly corresponding to our hoof-ail is known there; on the contrary, there is reason to suppose that it is indigenous in its origin, and that to our country we must look for its cause, its history, and its cure, should one fortunately be discovered, for as yet there does not seem to be any thing known that affords much certainty of cure or even mitigation of the complaint.

Our Henrietta correspondent has very well described the first appearance of the disease. An increasing lameness of one or more of the feet, a swelling of the ankle or pastern, a cracking of the skin below the dew claws or around the top of the hoof, and the discharge of putrid fœtid matter, are among the first symptoms. Here it sometimes ends; but if it proceeds, the leg swells, the foot ulcerates and the hoof falls off, the bones become carious and rot off, and the rifle ball or a well directed axe blow in the head is a mercy to the poor beast and the only cure. We have seen many animals that had lost their hoofs, some on one and others on two or more feet, that lived for months; but when more than one foot is affected badly, the reluctance and inability to move sufficiently to procure food is so great, that extreme emaciation is sure to follow, and they rarely so far recover as to feed or fatten to much advantage.

The hoof-ail, when it prevails in a section of country, will appear at all seasons of the year; but the disease is most frequent and injurious in the winter, or during cold weather, and while animals are fed on hay. The great similarity the disease sometimes assumes to frozen feet, has induced many farmers to suppose that it is never any thing more, and this opinion has been strengthened by the usual time of appearance; but the well known fact that animals are not unfrequently attacked early in the fall before the approach of freezing weather, or late in the spring or summer months, when if the feet had been frozen during the winter the effect must have sooner followed, would seem to militate strongly against such a position. That the approach of cold weather may have a tendency to induce the disease, or that the debility and the effect produced by it in the incipient stages may render the feet more liable to freeze, can readily be supposed; and it may also be admitted that many cases of simple freezing of the foot has been mistaken for the disease; still we should hold it impossible that all the cases we have seen could have sprung from that cause.

Besides freezing of the feet, the disease has been attributed to almost every cause adequate to produce such an effect; such as going into muddy brooks to drink in cold weather, too much litter and straw in the yards, pasturing in the fall on wet lands, and by many who have suffered much from the disease, to ergot or the spurs that shoot out on the grains and grasses. Whether the complaint can be attributed safely to any of these causes it would be too much perhaps to assert positively; but many facts and circumstances that came to our knowledge during the former periods of its prevalence, seemed to go far to establish the conclusion that much of the hoof-ail was caused by the fungus last named.

That the ergot will produce effects similar to those witnessed in this disease is known to every medical man, and to many farmers. During the distressing wars consequent on the French Revolution, and the entire confusion into which agriculture in a considerable part of Europe was thrown, the inhabitants of the north of Germany were compelled to subsist on the coarsest grains, and owing to some unexplained cause, the rye which constituted no small part of their bread stuff was a large portion of it spurred. The consequence was, that those who from their povety were compelled to live on this infected grain, were attacked with diseases of the extremities much resembling the foot-ail; inflammation, suppuration, and in some cases loss of the toes and fingers were the result of the poisonous substance so swallowed. The disease known to physicians by the name of *phlegmasia dolens*, has been by many celebrated professional men assigned to the same origin; or at least, it is their opinion that the great frequency of that disease, which has been witnessed within the last twenty years, may be attributed to the introduction of the common use of ergot into the materia medica. Since then it is certain that its use will induce disease on man, no good reason why it should not affect animals has to our knowledge been given; but on the contrary, there is much evidence that it is abundantly capable of producing all the effects on the brute that is exhibited in the foot-ail. The principal difficulty would seem to lie in accounting for its presence in sufficient quantities to produce such extensive results.

This difficulty, however, is more apparent than real. Most of the cultivated grains or grasses produce more or less *ergot*, and the quantity varies greatly in different seasons. Of the grains, rye shows the greatest quantities of ergot, and of the grasses, June grass (*poa pratensis,*) and the meadow catstail or timothy grass, (*phleum pratense,*) are the most infested. On these grasses we have seen 'horns,' as people sometimes call the spurs, from an eighth of an inch to an inch in length, and in some instances so numerous that a handful might be shelled off in a few minutes. The fungus grows the largest on the timothy, but in the greatest quantities on the June grass. About the time of the most destructive appearance of the foot-ail some fifteen or twenty years since, the immense quantity of the ergot on the grasses was a matter of common remark among farmers, and some were so confident that in this substance was the cause of the disease, that they were in the habit of threshing their hay to free it from the ergot, an operation easily performed, as the attachment of the excrescence is very slight. We know an extensive farmer who was so convinced of the disease springing from the ergot of the June grass, of which his meadows and pastures principally consisted, that after suffering for several years heavy losses among his cattle, he ploughed up his meadows and new seeded them with other grasses; and as he assured us, he had hardly lost an animal from that disease since. Another one finding one and another of his stock of cattle attacked, and apprehending that the ergot in his hay was the cause of the mischief, selected a few of his well animals, divided them into two parts in his stables, and fed one part with cut straw and clean grain provender, while the other had plenty of hay alone. The consequence was, that nearly every animal fed on the hay suffered more or less from the disease, while the ones fed on the straw escaped.—Both divisions were watered in their stables. One instance more which came to our knowledge at the time, would seem to be nearly decisive as to the action of ergot. A farmer had purchased a yoke of cattle, and fearful of disease kept them on hay which consisted mostly of clover. He had that year raised a quantity of rye which produced abundance of ergot, and this taken from the boxes of the fanning mill with the inferior grains, was thrown into a trough in the yard for the pigs. His man, however, turned his cattle into the yard, and they, finding the refuse grain, &c. before the pigs, devoured the greater part of it, ergot and all. In a few days both were attacked with the foot-ail and rendered worthless. From such facts, our inference has been, that ergot, if not the principal exciting cause of the foot-ail, was at least a powerful accessary, where a predisposition to the complaint already existed.

One of the most marked differences between the *foot-rot* described by European writers, and the *hoof-ail* of this country, is to be found in the effect produced on the general health of the animal. The foot-rot is accompanied with high inflammation, general debility and fever, loss of appetite and speedy emaciation, arising from the pain caused by the foot; in the hoof-ail the animal rarely refuses to eat, seems to suffer little inflammation or pain,

and when they become emaciated, as in the worst cases they always do, it seems more from the inability to get at their food, and the wasting consequent on the discharge from the feet, than from want of appetite for food or any other cause.

According to Lawrence, the symptoms of the foot-rot are as follows:

"It first makes it appearance between the claws or hoofs, in the form of a hard crack, attended sometimes with inflammation; in a short time this discharges an offensive matter, similar to that of grease in a horse's heels. At other times it makes it appearance with swelling upon the cornet between the hair and the hoof, and about the fetlock joint, attended with violent pain and inflammation; the swelling sometimes extending up the leg, and the pain so considerable as to speedily reduce the beast to a mere skeleton."

The directions for cure are,

"To bleed copiously, or until the animal faints; if the disease first appears between the claws, wash the part clean; when dry rub a tar rope to and fro between the claws till an evident warmth is produced, then dress the part with a wooden skewer dipped in butter of antimony, oil of vitriol, or nitrous acid. Let them stand dry one hour after, and then turn them on a dry pasture; do this for two or three days together. If inflammation appears, reduce it by a poultice of linseed meal or rye flour. The cure will be accelerated, if the following saline purgative be administered:

Glauber salts, one pound;
Ginger powdered, two ounces;
Molasses, four ounces;

Add three pints of boiling water, and when of new milk warmth give at one dose. The following ointment is excellent to dress feet so affected:

Hogs lard, two ounces;
Common turpentine, four ounces;
Blue vitriol, *very fine*, half an ounce.

Melt the lard and turpentine together; and when removed from the fire stir in the blue vitriol; continue stirring till cold, and the ointment is fit for use."

Lawrence does not allude to the possible loss of the hoof; but the writer of the work on British cattle, speaks of it as sometimes arising from the foot rot, yet as no very serious matter, according to him, new hoofs readily replacing the old ones; a result very different from their loss by Hoof ail, so far as our observation has extended.

But whatever may be the cause assigned for the disease; all will admit, that as yet no effectual remedy has been discovered, or that ever a palliative has to any considerable extent been devised. Poulticing, ointments, sawing off the hoofs, cutting out the *bladder under the heel!* (a process equal to cutting out the worm for the foot rot practiced by some in England) and a variety of other things have been tried with little or no success.

In conversing with an intelligent farmer the other day, who however believed that the disease in most cases arose from freezing, he said that his mode of proceeding, when he found one of his cattle or young stock attacked with lameness in the foot, if no external cause could be discovered, and there was reason to apprehend internal disease or suppuration, was, to pare off the bottom of the hoof as near the toe as possible, until the tender part was reached, or the collected matter freely discharged. In one or two instances he had found the extreme, or coffin bone of the foot so affected by the suppuration as to be easily taken out. In all such cases, he filled the opening made, with warm tar, kept the animal as dry as possible for a few days; and unless the collection of matter and consequent affection of the hoof had reached the upper edge, a cure followed. When however the hoof had become loosened, the bones carious, and the leg affected, cure he considered nearly impossible,

Those who have been the most conversant with this disease; who have seen fine oxen, emaciated and helpless, endeavoring to gather a little grass while the bare bones of the feet indented the turf; who have seen good cows scrambling about the fields on their knees, with young calves by their sides, the feet of the mother absolutely rotted off; who have witnessed the destruction of whole herds from this single cause; can the best understand the nature of this scourge of the farmer, and will most regret the ill success which as yet has attended the efforts to discover a sure preventative, or efficient remedy. But though the cause as well as the cure of this formidable complaint still remains a mystery; it only furnishes a proof of the necessity of closer observation on the part of the farmer, and the probable advantages that would result from such a course. One thing is certain, clean warm stables in the winter, good clover pastures in the summer, and good water and hay free from all fungous or poisonous excrescences at any season of the year, may be considered among the surest preventives of disease as well as the most certain means of profit. When these conditions are observed, neither the foot-ail, or the ails which usually spring from poor keeping and worse managment, will be apt to manifest themselves to any extent.

### Query---No 2---Potatoes.

'When different sorts of potatoes are planted in the same field, or near vicinity of each other, do they adulterate, as corn and many other vegetables do, that are propagated by seed. So says Gen. Barnam the great potatoe grower of Vermont, see Gen. Farmer, vol. 5. page 142. I do not recollect having seen any striking proof of such adulteration, nor have I believed in its existence, whether plants are propagated in the usual way, or otherwise than by seed. If they do adulterate, it must, I think, be from some cause differing from that which produces adulteration in corn, &c. In the latter case, sexual intercourse is employed—not so in the former.' A FARMER.

We have read Gen. Barnum's remarks on the subject referred to by our correspondent; and should think it doubtful whether he intended to assert that the impregnation of the flowers produced adulteration of the tubers; though, as the term *seed* is generally used, his language certainly admits of that construction. The Gen. says,

"The female of this plant (like most of her sex) is so jealous of her rights and privileges, and so tenacious of cultivating a friendly intercourse with her neighbors, that the blossoms in fields at 200 yards distance, planted of different kinds of seed, are frequently found contributing liberally with each other (by the aid of a gentle breeze) a portion of their generating *farnia* which is generously received and kindly nourished. The product of this connection, strongly partaking of the properties and appearance of both, many of them in apparently equal parts. * * * The wise Providence of all good things has kindly furnished us with the means of providing ourselves with innumerable kinds and qualities of this vegetable. The ripe balls or seeds from a single stalk, will produce in three seasons planting almost countless varieties of every color, shape, size, and quality, which the country has heretofore produced, and something new in addition."

If, when the General speaks of the 'product' resulting from the mixture of the pollen or fertilizing dust of the blossoms, he refers to the *tubers* instead of the proper *seeds* of the plant, which are, as he admits, contained in the balls, he must be pronounced, as our correspondent supposes, decidedly incorrect. Such a result we imagine would be contrary to all the known principles of vegetable physiology, as well as to actual fact. The tubers are not the seed of the potatoe, strictly speaking, any more than the cuttings of the vine or the mulberry, by which we in general choose to propagate; the tuber of the potatoe and cutting of the mulberry, furnishing a certainty not belonging to the true seed, that the product will be of the variety used for propagation.

Facts, too, are decidedly against the supposition that the impregnation of the flowers by pollen from other varieties, can have any influence in changing the tuber of the plant. The varieties of the red, black, yellow and white potatoes; the Sardinia, pinkeye, English white, and Irish red, have been grown for years in the same fields, and in all possible proportions, yet the roots are as distinct in their qualities and appearance now, as at the time when they were derived from the proper seed. We cultivated seven or eight varieties of the potatoe, the most of them side by side in the same field, the last season; but in gathering found no proofs of the impregnation or adulteration of the tubers, nor have we any apprehension that choice varieties can be injured or deteriorated in that way. It is to the seed alone that we must look for new varieties, combining, or originating, new colors and new qualities.

### Seasonable Hints on Gardening.

Before warm weather commences, or during the early part of this month, it will be a good time to prune gooseberries and currants. This work is frequently neglected entirely by cultivators of gardens. By thinning the branches and admitting light and air, the fruit would be greatly improved. The operation consists chiefly in cutting off all irregular and straggling shoots, and leaving but few of the most thrifty. Where the branches stand so closely as to interfere, they should be thinned to regular and moderate intervals. It is also very important that they be trained with a single stem entirely free of branches, to a height of six or eight inches. The practice of clipping the ends of the branches with shears, sometimes pursued, makes the growth more thick, and should never be resorted to.

As soon as the surface of the ground begins to thaw, raspberries should be pruned, if not done in the preceding autumn. The old bearing stems of last year are first to be cleared away, and then four or five of the straightest and most vigorous young shoots selected for bearing, and all the rest cut off closely to the ground. The remaining shoots are then to be shortened by cutting their tops to about four feet high, and secured from being borne down by the load of leaves and fruit they must bear, by tying to an upright stake.

Hot-beds for starting early vegetables may be made at any time from the middle to the end of the month. The sooner they are made the more forward will be the plants when removed to the open ground, but more care will be required in their management and protection. Works on gardening give minute directions for making hot-beds; the only object however to be attained, is to furnish heat to the germinating seed and young plants, by means of a bed of fermenting stable manure, and to protect them from external cold by a frame of sash and lights. A bed is sometimes made very expeditiously, by making a large box by nailing rough boards to corner posts, and throwing in with regular layers, *well shaken* unfermented stable manure. This requires little skill, and may be easily made by any one. When made in the usual manner, which is done by driving four stakes at the four corners of the intended bed as a guide for future operations, the manure is put on by successive layers until of the required height, occasionally trimming off the edges and leaving smooth upright sides. Each layer should be beaten down by the fork, and about twice as much placed at the edges as in the middle, that the bed may settle evenly.—The height of the bed depends upon the time it is made; if made early, it is roquired to furnish heat longer, and should therefore be built higher; the usual height is from two and a half to four feet before settling. When the bed is made, the frame or box is to be placed upon it, and six or eight inches of fine rich mold placed in it, to sow the seeds in. The sash is then to be put on. After the seeds are sown, and more especially after the young plants appear, great care is needed that the air beneath the sash does not become so hot as to injure them. There is little danger of this during night, but an hour or two of warm sun upon the closed bed, might destroy the whole crop. The sash is therefore to be moved partly off each fair day soon after sunrise.* During severe freezing weather, mats or straw should be placed upon the glass for additional protection. In a month, the plants will be in fine condition for transplanting into open ground.

Hot-beds are more particularly useful for starting cabbages, cauliflowers, lettuces, radishes, tomatoes, &c. The Early Sugarloaf Cabbage and Early York; the Early curled, Imperial cabbage and Turkish cabbage lettuce; and Mason's Early Scarlet Radish, from Reynolds and Bateham's seed store; have been found among the best which the writer has tried for early sowing.

A cheap substitute for hot-beds consists in making large heaps of unfermented manure in the form of beds, bending poles in a semi-circular form over them, and placing mats upon them whenever protection from frost is necessary. These should be made a little later than common hot-beds.

If the spring opens early, spreading manure, and tilling the ground may be commenced at the end of the month. It is not necessary to say much here on the subject of laying out gardens; but there is a mode adopted by some, which farmers and those generally who cannot afford to expend much labor on gardens, may find convenient to adopt. The currant, gooseberry and raspberry bushes, beds of strawberries, &c. extend in rows across the garden; between these the usual annual crops are planted. The advantage of this is, that a plough may be introduced, and the expense and labor of spading saved. A vacant space should be left at each end of the garden, for the horses to turn upon.

As early as possible in spring, peas, and broad or English beans should be planted, hardy lettuces sown, and turneps, carrots, and beets for early crops planted. Parsneps should also be sown as early as possible, as they continue growing through the whole season. J. J. T.

* Placing the hand under the sash will serve to determine the degree of heat. Plants in hot-beds are much more commonly injured or destroyed by heat, than from any other cause.

## COMMUNICATIONS.

### Is Wool Growing Overdone?

Mr. Tucker—Being a Wool-grower, I have read with more than ordinary interest the controversy between your correspondents "C." and "South-hill," on the question *whether Wool-growing is overdone, or not.*

I have waited with some impatience for a reply to "South-hill," but "C." not having again entered the lists, I may infer that he considers himself overthrown; but whatever may be the reason for his silence, in my opinion he is still in the right, notwithstanding South-hill may, in the opinion of others, have put the question at rest, or beyond farther controversy.

I shall endeavor to support the position of "C." *that Wool-growing* and the *manufacture of Wool is overdone*, and my proofs shall be based on the principle of *supply and demand*—and, in order to a better understanding of this principle, as a preliminary, I refer your readers to Dr. Adam Smith's celebrated work entitled Wealth of Nations, chap. 7—and to Outlines of Political Economy, by M'Culloch, with notes by Professor McVicker, and dedicated by the latter to James Wadsworth, Esq., of Geneseo.

In both of these works it is clearly proved, and the point established by all experience, that the price of an article is always regulated and determined by the cost of production—which is its "*natural price;*" and its exchangeable value, or market price,is regulated by the demand and supply. It requires only ordinary observation to prove this principle always correct.

Now, it must be conceded by every Wool-grower that wool has been for the last eight months, or more, and now is, below its *natural price;* that is, below what it actually costs to grow it, taking into consideration capital employed, and every expense appertaining thereto —and why is this so? Because the quantity grown has exceeded the amount required for consumption, therefore demand has not equaled the supply, and prices have fallen accordingly. If the stock of cloths in the country, foreign and domestic, had been no greater than was required for ordinary, or immediate consumption, the demand for the raw material would have continued good, and at proportionate prices, and in despite too of the great calamity which befel the manufacturers. Much of their active capital, which was swallowed up in suspended paper, would (such is the character of enterprise) have been supplied from other sources, *provided* a demand for their wares had warranted it. But unhappily for them, and the wool-grower, this demand was choked—a supply being on hand adequate to the wants of the country for a term of many months, without the necessity of moving a spindle, or the importation of a yard. This is established by the fact of little importation taking place—many manufacturers ceasing entirely their operations—and others working only for the purpose of saving their machinery from destruction; and yet the markets for woolens the last fall, were fully supplied, and prices below what they have ever been in this country.

The production of wool, and its manufacture, have moved hand in hand;—not so with cotton and cotton manufactuerers. The raw material fell 50 per cent; whereas, to the astonishment of almost every one, sheetings, shirtings, &c. &c., maintained prices which existed during the year previous. But it is plain that, if the manufactured article had been equivalent to the supply of the raw material, prices would have fallen together; the reason why it was *not* so, is the fact,that the demand was adequate to support prices to the extent only of this supply.

But let us turn our attention to provisions. How stood the matter last year, and how is it this, in regard to wheat? is the price not enormous? How is it to be accounted for? Why, obviously to every one, the supply was not, and now is not, equal to the consumption, and therefore did not equal the demand, and prices advanced in that ratio. But let us try the converse of this. Suppose that, of the crop of wheat of last year only one third of it was consumed, which is allowed to be of the proportion of wool of the last clip worked up by the manufacturer, and that within four months another crop equal to the preceding one is to be gathered: is it not fair to presume that wheat would be quite as much of a drug as wool, and that instead of $1,50 per bushel we would obtain only a *natural price*, or below it?—and further, would it not prove most conclusively that we had over produced, and it was high time to turn our attention to something else more profitable. Most certainly, all your readers, methinks, will exclaim.

But I will refer to an other production, viz: Oats.—It will be within the recollection of most of your readers that the prices of last spring varied from four to five shillings per bushel:—Now, notwithstanding Wheat, Pork and Beef, are not materially below the average of last year, yet oats are rather a drug at 31 cents—its natural price; proving that last year the crop did not equal the demand, and that this, it is fully equal.

I shall not proceed further in the way of illustration, in order to demonstrate that demand is a sure criterion to decide the question of the extent of over production, or otherwise.

I will now proceed to make some remarks upon the testimony furnished "South-hill" by Sam'l. Lawrence, Esq. of Boston, which is done with some diffidence, as I have no other statistical importation than is conveyed in his letter. I am diffident from another cause. Having had, as a wool-grower, long dealings with Mr. L. I have the pleasure of knowing him, and I most cheerfully accord to him all that should characterize the gentleman—a man of indefatigable industry, and great experience as a manufacturer. But *as a manufacturer*, I am bound to believe that he is not altogether free (for it does not belong to human nature) from bias. It is easy to conceive that is for the interest of the manufacturer to have a large and full supply of the raw material, in order that its price should not advance to an inordinate rate, for the reason, that when it is low, which follows from much competition in its production, the amount of active capital employed in its purchase, is reduced accordingly; and moreover, it is presumed, the profits of manufacture are quite as high as when the raw material is worth double what it now is. Therefore I think it not exactly safe to appeal to the manufacturer as exclusive authority to determine the question, especially when the pockets of the wool-grower will save the trouble by telling the story in a quicker and much shorter way.

Mr. L. states that in 1836, 10,905,871 lbs. wool were imported, costing abroad under 8 cents, duty free. This amount seems large, and so it indeed is; but the fact ought to have been stated, that the quality of this wool is of a sort coarser than any grown in this country, coming chiefly from South America, Asia Minor, and the northern parts of Africa, and therefore does not enter into competition with wool grown here; and further, has little influence in either reducing, or enhancing prices.

Of dutiable wool, we imported in 1836, 1,390,678 lbs.; this amount is small, as with one other manufacturing establishment like the Middlesex, the whole could be worked up in one year. As regards the quality of this wool, the far greater proportion of it was of a finer grade than is grown with us, and of course was as much *beyond* competition, as the other description named was *below*—much of it was disposed of at auction and brought from 80 to 140 per pound. It was imported by way of "experiment," and like some *other* experiments resulted in disappointment!—at least, so said a Pittsfield manufacturer to a friend of the writer, it being too fine for their skill and machinery. The amount of dutiable wool imported last year Mr. L. does not state; but the fact is well known that it was a mere trifle.—Now, this is the upshot of this wool importing, which so loud a cry is made about, to prove that wool-growing is not and cannot be overdone so long as part of our consumption is made up from abroad.

Mr. L. further states, "that at this time, the stock of woolens is less than at any period for the last ten years, including all in the custom Houses."

This would, indeed, be cheering information to the wool-grower, if the melancholy fact did not exist, that not more than one third of the last clip has been used by the manufacturer, and that in four months, another clip, equal to the last, will be ready for market.

In conclusion, I desire to be distinctly understood that I do not wish to inculcate the idea, or support the position, that wool-growing and manufacturing are overdone in this country *unless* foreign competition be shut out; but *with* that competition I do most cordially wish to be so understood. Have we the power to stay or rid ourselves of that competition? Not without laying duties amounting to prohibition, or furnishing our wool to the manufacturer at prices more ruinous than at present.

The advice which "South-hill" has offered is thrown away. He may rest assured, that the keen eye of interest will look, in thousands of cases, for more profitable investment, and happy would it be for our country, if part of the capital now employed in sheep husbandry was directed in a way to save us from the humiliating necessity of importing part of the means of our subsistence.

L. A. M.

*Lansing, Tompkins County.*

### BLOOD HORSES.

Luther Tucker, Esq.—I herewith forward an advertisment of one of our grooms,of the very superb horses Bellfounder and Bellport, and in so doing, beg the favor of offering a few remarks for the consideration of the public. Notwithstanding the very able communications that have appeared in the early volumes of the Genesee Farmer, on the Blood Horse, many of its present readers may not be aware of the superior qualities of this breed, over the ordinary animal, and are therefore unwittingly going on, and annually producing a miserable dung-hill stock, thus subjecting themselves in many instances to a positive loss, and generally to no gain, that on the other hand with a little care and attention in the selection of stallions, they might make a source of *very great profit.*

The general distinction of the Blood Horse over the common kind, and which gives him that superior speed, power and endurance are,

1st. The solidity of his bones—those in the ordinary animal being coarse, light, and porous, while his are hard and heavy, of very fine and compact grain, partaking more of the nature of ivory, than the substance of common horse bones.

2d. His deep broad chest, giving the heart and lungs full room to easily play, and perform their proper functions under that powerful rush of blood, that instantly accompanies great speed.

3d. His iron-like muscles, and superior general elasticity of bone and sinew.

From the thorough bred horse that England has so wonderfully perfected, she is now breeding three distinct varieties, to which a fourth is lately proposed to be added.

1st. The Racer, that is cultivated for his speed alone, and is therefore, generally leggy, light and elastic, and boasts of no superior beauty of figure, in the ordinary acceptation of the term.

2d. The Hunter, selected for combining the nearest approximate speed of the racer, that is compatible with strength for carrying weight in the saddle, and leaping and pursuing his course unflinchingly over rough, broken or deep ground.

3d. The Roadster, or Hack and Carriage Horse, which is of beautiful form and action, with a lofty step, great strength in the collar, with high speed and endurance.

4th. A race of Cavalry horses is sought, which could only be a modification of the hunter, merely adding to his other good qualities, more stoutness if possible in carrying weight.

Bellfounder and Bellport, pre-eminently belong to the third class, which in my humble judgment is the most useful of all, and better calculated than any other, to improve the stock of our country, being as strong in the

collar even as the heavy Pennsylvanian, beautiful, quick and enduring in carriage harness, or under the saddle.—These horses were selected at a high price after carefully looking over both the eastern and southern studs, as decidedly the most superior and best adapted for the heavy roads of western New-York. They were brought out here, not with a view so much of making money, as a desire to see this noble race of animals improved around us, and they are put at the very low price (for a high bred horse) of fifteen dollars to insure their use—their owners asking for nothing more than to save themselves from loss. It is to be hoped, therefore, for the farmers and breeders' own sake, these horses may receive that patronage and encouragement, that it is thought they so well merit. Western New-York, with its rich nutritious pastures, and equable climate, may become as celebrated for its fine stock, as it has hitherto been for its beautiful fields of wheat, and superior grasses and esculent roots. An unlimited market is open to the East,and growing up in the great West for us, and all that is requisite is a little spirit and enterprise on the part of land-holders to add vastly to the value of their estates, and the productive income of the country.

Very respectfully, your ob't. servant,

*Buffalo, Feb. 17th,* 1838. A. B. Allen.

## HOOF-AIL.

Mr. Tucker—From what I have seen in the Farmer, respecting the Hoof-Ail, I am induced to investigate the subject, yet my information is some what limited. My cattle have not been troubled with it, yet I have seen some of its effects. It appears there is a difference in opinion as to the cause of the Hoof-Ail. One says the want of exercise and filthiness—another that it is freezing, and a third one says it is the ergot in the June grass. I am of the opinion that ergot is the cause. All that are acquainted with the June grass, have undoubtedly seen it thickly set with the ergot. The two last seasons it has been very common and not wholly confined to rye and June grass, but wheat has produced it. Hooper says the ergot has a singular effect on the animal economy. The flour sprinkled on a wound coagulates the blood, excites a heat and then a numbness in the part, and soon after in the extremities. Bread which contains some of it does not ferment nor look well, and is glutinous and nauseous. The bread when eaten produces intoxication, lassitude, a sense of something on the skin, weakness of the joints with convulsive movements, occurring periodically. The disease continues from ten days to two or three months and longer; pain and numbness of the extremities in the commencement; generally loose the feeling in the parts, and the skin from the fingers to the fore arm, or from the toes to the middle of the tiba (the large bone below the knee) becomes dry, hard and black, as if covered with soot. This species of mortification is called *necrosis cerealis.* This word, the strict meaning of which is only mortification, is by the general consent of surgeons, confined to an affection of the bones. The death of parts of bones was not distinguished from caries by the ancients. However, *necrosis* and *caries* are essentially different, for in the first the affected part of the bone is deprived of its vital principle; but this is not the case when it is simply carious. Caries is very analogous to ulceration, while necrosis is exactly similar to mortification of the soft parts. The Hoof-Ail has every appearance of the mortification of the soft parts of the bone of the foot. The mortification is preceded by a numbness which causes the creature to hold up the foot and shake it or kick several times in quick succession. If the creature at this time is put under quick exercise for half an hour, so that they are in a complete perspiration then returned to a warm stable, the cure is generally effected. If they should be neglected for several days and the mortification become seated, it is difficult to be cured. If in the first stages of the mortification, the parts affected should be frequently bathed with spirits of turpentine and poulticed with flax-seed and ginger. If the mortification is not of many days standing, a cure may be expected. Where the foot has become badly swolen, the skin begins to crack and pus makes its appearance around the hoof, a cure is very doubtful; and if the hoof comes off the sooner they are dispatched the better. I have seen cows attacked with it in February—and the complaint not cured, and suffered to linger until August, and then knocked in head a mere skeleton. There may becases where cattle freeze their feet. Such cases are seldom, and occur only in the most severe freezing weather, in yards where they eat up all of the litter and are suffered to lay on the snow for some length of time. I will soon attempt to show in what locations the Hoof Ail is to be expected, and how it may be prevented.

Respectfully yours, R. Harmon, Jr.

*Wheatland, Feb. 27th,* 1838.

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Mr. Editor—By chance I found the Feb. number of the Monthly Genesee Farmer, soliciting information as to Hoof-ail in cattle. As far as I can draw from your description of the complaint, it is the same that was with us some years since. My stock was much afflicted with that complant. The first symptom was a lameness in the hind feet, one or both of them; the complaint evidently was produced by ergot on hay, which was very abundant that year. It was on the grass called spire grass; some of it is to be found on that almost every year, but not enough to produce the complaint. I tried various remedies in my stock, without any good effect.

I soon discovered a bunch under the dewclaw, over the crotch of the hoof. I put my knife in prime order and stuck it in over the crotch of the hoof, (not much matter how deep) let the knife come out between the hoofs in all cases. Where I applied this remedy it cured the complaint, not only my cattle but all of my neighbors. The cattle ought to have their feed changed immediately and put upon better feed, to change the juices and blood of the creature. I cured some of my cattle after the hoof began to crack off. There is no mistake as to the remedy, if I am not mistaken in the complaint.

Amherst Willoughby.

*East Berkshire, Vt., Feb.* 28, 1838.

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Mr. Editor—I noticed in your last Monthly Farmer, an account of a disorder called the Hoof-Ail, or foot rot. I know of no cure for that disorder; but it is my humble opinion that it is brought on by the food they eat. I have traveled the past season through the western part of this state, and was in several hay fields, and discovered in the meadows an immense quantity of what is called June grass, and that it was very smutty; the heads of the grass in some places were entirely black with it. I do not pretend to say that is the case of M. R's. cattle being lame, for I do not know as he has fed any to them; but it is believed that the smut of June grass is poison to horn cattle. It produces a stagnation of the blood, so much so that it does not circulate into the legs and hoof at all; and by its not circulating it becomes dead, and causes what is called by many the black leg. If you think the above worth the time and paper publish it. P. M.

*Lebanon, Madison Co. Feb.* 1838.

## On the Cultivation of Timber.

That portion of the state of New-York lying west of Utica,and south of Lakes Ontario and Erie, and extending south to the Pennsylvania line, is perhaps not exceeded by any portion of the United States in fertility of soil and local situation; with the Erie Canal winding through its center, and its numerous lateral branches, its rail roads, and other easy means of communication, it is destined at no very distant period to be indeed the empire of the empire state: and when too its immense hydraulic powers are considered, its manufacturing establishments now arising, and towns and villages springing up as if by enchantment; when intelligence is keeping pace with improvements, and education is disseminated from its thousand common schools, its acadamies and other seminaries of learning, its numerous temples dedicated to the worship of the living God; and all this too within the space of not more than forty years,* who with ordinary vision can help seeing that western New-York must soon be the greatest among the great. But to whom are we to look to realize these anticipations? Not indeed to this or that political party, for politicians have never caused two blades of grass to grow where one formerly grew, but to the farmers, the producing class, the manufacturer and the merchant, these bones and muscles of our country; it is to these that we are to look for the future greatness of our country; but with all their fine prospects in view one serious evil is staring us in the face; *I mean the want of timber:* already many are feeling the want of this indispensable article; rails and other fencing stuffs are drawn many miles, while the source from whence they are procured must soon be exhausted; yet very few attempts have been made to cultivate, while many are selling their fair patrimony and removing to the boundless prairies of the west, there to be supplied no one knows how; but is there no alternative? Must we freeze or go to the far west? This is really a trying question while writing with the thermometer near zero, and the "hoarse blast of boreas" sweeping o'er our heads, while the blazing fire needs frequent additions of seasoned fuel.

Can our wants be supplied from our own farms? I think they can. There are several kinds of timber which can be cultivated; among these the yellow locust and the chestnut are the best; of these I consider the former altogether the best, its rapid growth, and durability should recommend it to every cultivator of the soil: and when once planted it will soon occupy the soil to the exclusion of every other tree. With no knowledge but what I have gained from the Genesee Farmer, and but little experience, I have commenced the cultivation of this vualuable timber, and intend next spring to plant a few trees in my wood lot, in such vacant places as are common in wood lots; should they do well I shall pursue the same plan in succeeding years, until my wood lot is filled with yellow locust and chestnut. If once they get a *fair footing* they will hold undisputed possession, and a few acres will be sufficient, where with our native forests we want many.

The sugar maple too deserves a place on every farm; this most beautiful tree is easily cultivated and grows rapidly. I planted about 20 last spring and every one lived. They are easily procured from the native forests, those growing near cleared lands are the best, and they thrive on almost every soil. There are many other kinds that deserve our attention, as the oak, the hickory,the ash, and the elm; and to the lovers of beauty and fragrance the basswood should have a place in every farm yard.

"Such is my plan, if better thine;
Impart it freely, or make use of mine."

Van Buren.

## Water Cement.

A few words in answer to the inquiries of O. P. Q. on this subject, will perhaps enable him to judge of the propriety of trying the experiment of using water lime for Aqueducts. In the first place Parker's Cement is nothing more or less than the best Water Lime with a very coarse sand, clean and sharp; even a fine even gravel from the size of peas to the size of walnuts are no objection, but rather a benefit to the cement.

The mode of constructing the cement pipes for acqueducts is as follows: put down a trench of two feet in width, and two to three feet in depth; at any rate beyond the reach of frost or the plough share; the cement is made with two parts very coarse sand and gravel and one of best water lime, (from the Syracuse region) beat up pretty stiff, and it is fit for use. To commence, you procure a piece of leather, of the kind called thin harness, to be sewed up like the cover of a whip stalk, of the size you require, and about two feet long; this is filled and rammed with bran till it is quite hard and elastic. To commence, make the bottom of the ditch quite level and firm, by throwing in some fine earth, and beating it down with a pounder, then with the hand surround the leathern rod with the cement about one and a half to

* Hugh White was the first white settler west of Utica. He settled at Whitesborough in 1789.—(Spafford's Gaz.)

two inches thick, say twelve to eighteen inches in length, then holding back the cement, draw forward the rod a proper distance and continue the process till completed. If fair, dry weather, let it lie uncovered two or three days to set; after which time throw over it some fine earth, and if convenient to water, pour on a sufficient quantity to *puddle* it down close and compact; if not, cover with the moistest earth convenient, and gently pack it down; a man with the bare feet is a very great operation; after which fill it up and punch down as you proceed—it should be a month before letting in the water, and then if there is much head to the source, it should not be stopped, but allowed to run off for a while.

For heads exceeding eight or ten feet, I should have some fears for its strength of the above named thickness; a thicker and stronger tube should be given.

When properly laid down with good materials, I have full confidence in their durability.

Last winter I experimented with a piece that had been used seven years—the piece weighed when quite dry five pounds, it absorbed seven ounces of water at a boiling heat, and was exposed to some most severe weather without affecting it in the least, it was in fact a stone which gave a ringing sound when struck, and was about the hardness of our tufaceous lime deposits.

Great care sbould be taken to give it a fair solid bed, and a certainty that the underside is whole and without holes, and that there is a good packed bottom and covering to secure its either settling, or moving in any way.

*Greece, Feb,* 1838. L.

### Pump Logs.

Mr. Editor—I saw an inquiry in the second number of the Monthly Farmer, requesting information as to what kind of timber is the best for pump logs. I have had some experience in the business. I tried almost all kinds, and I found hemlock to be the sweetest and most durable timber which I have used. Cut hemlock when it is frozen hard, and peel the bark off, and it is almost next to cedar. It needs not much recommendation because it will recommend itself. Just try it for yourselves. Oren Thorp.

*Eagleville, Feb.* 26, 1838.

### Patent Office Report, for 1837.

By the kindness of the gentleman at the head of the Patent Office at Washington, H. L. Ellsworth, we have received a copy of his Report for the year 1837, and are glad to learn from it that the office is fast recovering from the effects of the disastrous fire of the last year;—that new and improved models are rapidly taking the place of the old,—that the library, so indispensible in an office of that kind is fast increasing,—and that the income of the office, notwithstanding the increased expenditure, exceeds the annual expenses; the former amounting to $29,289, and the latter to $19,481.

Mr. Ellsworth has embodied in his report, some very judicious remarks on subjects immediately or remotely connected with the office of which he is the head; but we have only room for a condensed abstract of those relating to agriculture, to which we invite the attention of the readers of the Farmer.

"Of late, inventors have directed their attention with peculiar interest, to the improvement of the implements of agriculture; and many labor saving machines have been patented, which are of the highest utility to the husbandman. * * * Already the process of sowing, or mowing, and of reaping, is successfully performed by horse-power; and inventors are sanguine in the belief, that the time is not far distant when ploughing machines will be driven by steam; and steam power applied to many other operations of the husbandman. * * Intimately connected with this (a depository of agricultural implements) is the aid which husbandry might derive from the establishment of a *regular system* for the *selection* and *distribution* of *grain* and *seeds* of the choicest varieties for agricultural purposes.

"The introduction of a new variety of wheat promises the most gratifying results, in securing that important and indispensable production from the destructive effects of our severe winters. A short time since, the most eastern state of our Union was in a measure, dependent on others for her bread stuffs. That State is now becoming able to supply its own wants, and will soon have a surplus for exportation; and this is effected by the extensive introduction of *spring wheat*. Among the varieties of this wheat, however, there is great room for selection; there is at least 20 per cent. difference, if regard is paid to the quality and the quantity of the crop. * * From the samples transmitted to the patent office, especially from the shores of Lake Superior, there is a moral certainty of a good crop of *corn* in the higher latitudes, if proper attention is paid to the selection of seeds. Inattention to this subject has lost to the northern portion of our Union, many millions every year.

"The quantity of flour (*wheat or other kind*) consumed in the United States, is estimated on the highest authority, at five thousand five hundred millions of pounds; one half of this is supposed to be wheat, which at three cents per pound amounts to over eighty millions of dollars; and the remainder at one and a half cent only, amounts to over forty millions. If to this is added the vast quantity distilled, and employed in the arts, and consumed by domestic animals, a conception may be found of the importance of our crop of grain. If then the quantity should be increased only 10 per cent. by improving the seed, the annual gain to the country from this source alone, would not be less than from fifteen to twenty millions of dollars. It is unnecessary to carry out this estimate to the other productions of the vegetable kingdom, the result would be the same in all. *The well directed efforts of a few years, might give to this generation, what would not otherwise be enjoyed in the present century.*"

### Items from Foreign Ag. Journals.

*Received at the office of the Genesee Farmer.*

Wheat.—"We have seen a specimen of a peculiar kind of wheat—we are not acquainted with the name of the variety—grown by a gentleman residing near Lake Sincoe, Upper Canada. It is about the size of common wheat; has very little chaff; and of a semi transparent appearance. The seed was produced from the cape of Good Hope, was sown on the 28th of May, and cut and housed on the 31 of August. The advantage of such a quick growth, in a cold climate, must be evident.—*Farm. Mag.*

Agricultural Society of Scotland.—At the late meeting of this society at Dumfries, the number of persons attending, and the show of articles and animals, exceeded that of any former year. Of wheat were shown no less than 90 different species and varieties; of barley 20; of oats 39; of grass 250; of herbage plants 60; of plants for dying 16; oil plants, about 20; of flax and other fibrous plants 10; and nearly 1000 potatoes, of different sorts. The third section of the market place was filled with giant vegetables, such as swedish and yellow turneps; red and white carrots; mangle wurtzel; huge cabbages, ruta baga, and potatoes from the original weed, imported from Venezuela.—36 *No. of Quar. Journal.*

Apples without blossoms.—In the 385th number of the Philosophical Transactions, Mr. Dudley gives an account of an apple tree which annually bore a very considerable quantity of fruit; though it had never a single blossom or any thing like a blossom upon it. Mr. D. daily examined the tree, till he actually saw the young apples begin to appear, which they did at the time that the others which had borne flowers produced theirs; and the apples ripened upon it like those upon the other trees. It had thus gone on producing fruit but no flowers for 40 years. —*Farm. Mag.*

Large Cabbages.—At the general meeting of the Horticultural Society of Talkirk, Mr. Johnstone, the well known amateur and successful cultivator, produced several rare specimens of cabbages, among which was an early cabbage of the unprecedented weight of 34 pounds. Likewise a head of late cabbage, the heart of which was four feet in circumference: and his prize cow-cabbage was upwards of 18 feet in circumference.—*Scotsman.*

A dairy on lift.—Such is the scarcity of winter food for cattle in some districts of this country (Ireland) that unthrashed oats are given to the cows in some places, where hay is not plentiful, and until within a few years it was a custom prevalent in the county of Kerry, and other parts of Ireland, to fasten a rope round the body of each cow for the purpose of raising them from the ground, when they were in so weak a state from short allowance as not to be able to rise without help, and it was one of the duties of the farmer or his man to go round the fields every morning "lifting the cows!"—*Report on Irish Agriculture.*

Butter in London.—The consumption of butter in London may be averaged at about one half pound per week to each individual, being at the rate of 26 to a year: and supposing the population to amount to 1,450,000, the total annual consumption would be 37 millions, 700,000 lbs. or 16,330 tons. But to this may be added 4000 tons for the butter required for the victualing of ships, and other purposes, making the total sum in round numbers 21,000 tons, which at 10 pence per lb. would be worth £1,900,000. The average product per cow of the butter dairies is stated by Mr. Marshall, at 168 pounds a year, so that supposing we are right in the above estimate, about 280,000 cows will be required to produce an adequate supply of butter for the London markets. But the consumption of butter in London has been sometimes estimated at 50,000 tons, which would require for its supply 666,000 cows.—*Farm. Mag.*

Preserving Books.—The insect, the *Anobia Striatum* it is well known is very destructive in libraries, destroying books by perforating and living on the paper, paste, and binding. Sir Thomas Philips states that for the purpose of preserving book and manuscripts, he had used paste in which corrosive sublimate was mixed, which would for some time resist their attacks. He had effected the destruction of this insect in his library, by placing in different parts of it pieces of beech plank, smeared over in the summer with pure fresh paste. It was soon discovered which pieces of wood were infected, by the saw dust, and these were removed and burnt. So injurious was this species, that he considered that one impregnated female would be sufficient to destroy a whole library. Mr. Curtis suggested the employment of spirits of turpentine, as the effect of corrosive sublimate and other poisonous substances lasted only a short time, besides discoloring the leather binding. The swell of the turpentine was offensive to the insect.—*Lon. Ath.*

Grain in the Deccan.—The Deccan is an elevated plateau of land in the interior of the presidency of Bombay in the India, and from the account given of it by Col. Sykes furnishes striking proofs of the fecundity of vegetation in a tropical climate. "Agriculture, though rude is very productive. There are two harvests in the Deccan, one at the hot and wet season, and the other at the cold or dry season, and both of different kinds of grain or pulze. The harvest of the wet season is rice, which is produced chiefly in the hilly country. The other harvest is of wheat, barley, &c. The productiveness of some of these grains is perfectly astonishing. Four species were mentioned—one producing 33 stalks, and 61,389 grains from one seed; another 1,690; a third 2,985; and a fourth 1,850. One species of wheat taken out of a field at random and now in the Cols. possession, had 25 stalks, and 1,450 grains from one seed, and the average crop on tolerable land was eight stalks to a root. There are 45 cultivated fruits, twenty-two wild fruits, and seven species of the grape. There are corn, barley, peas, and sugar cane; and 46 articles of garden culture.—*Athenaeum.*

Cotton.—The first cotton received in Britain, from the United States was in 1785 and 1786, but this was only a few bags apparently of foreign growth, and had been transmitted to America from the Spanish Main. Cotton was raised in gardens in the United States before 1786; but that was the first year in which it was cultivated by planters as a field crop, and 1787 was the first year in which any of the growth of the country was exported. The production has now reached the immense amount of four hundred millions of pounds annually.—*Athenaeum.*

Distinction between Poverty and Pauperism.—"It is of the utmost importance accurately to distinguish between poverty and pauperism; for by confounding them, poverty is dishonored, and pauperism is countenanced. Supply poverty with means and it vanishes, but pauperism is the more confirmed. Poverty is a sound empty vessel, but pauperism is not only empty but cracked. Poverty is a natural appetite merely wanting food; pauperism is a ravenous disease which no food can satisfy. Poverty strives to cure itself, pauperism to contaminate others. Poverty often stimulates to exertion, pauperism always paralyses. Poverty is sincere, pauperism is an arch-hypocrite. Poverty has naturally a proud spirit, pauperism a base one, now cringing, now insolent. Poverty is silent and retiring, pauperism is clamorous and importunate; the one is grateful, the other the reverse. There is much that is allowing in poverty, but pauperism is altogether hateful. It is delightful to relieve the one; irksome to be taxed for the other. Poverty has the blessing of heaven, as well as those that relieve it; pauperism on the contrary has nothing in common but is the reverse of the christian virtues. The injunctions of the gospel are in favor of poverty, but wholly in opposition to the spirit of pauperism, and the merit of those intsitutions which serve to encourage, and of those individuals who thoughtlessly succor it, may be estimated accordingly."—*Walker, in Farm. Mag.*

Products of the Soil.—At the meeting of the Ashbosing Farmers' Club, among other vegetables exhibited, was large white carrots, a green topped swedish turnep weighed 11½ pounds; a red globe beet 27½ inches in girth; one of the common kind weighed 23½ pounds; a decanter white turnep measuring 3 feet 2 in. by 2 feet 5 in. and weighing 15 pounds; Italian rye grass which has grown 4 feet in eight weeks after the crop had been cut for seed; Egyptian wheat containing 780 kernels in four ears, be-

sides beautiful specimens of that excellent plant the turnep-rooted cabbage, &c. &c.—*Farm. Mag.*

### Front-yards--Shrubbery--Flowers.

While the farmers are vigorously preparing to engage in the important and busy operations of spring, they should not neglect those employments of the *taste* that contribute so much to the beauty, pleasure and comfort of a country residence. Don't suppose from the caption of this article, that we are going to advocate an inutile, unproductive expenditure of time and labor; for if you do, we shall address ourselves to your wives and daughters—God bless them. We hold it the duty of every good farmer to render his *home* as happy and agreeable as possible; to combine the solid comforts of life, with the elegant pleasures of taste. We do not urge the sacrifice of substantial enjoyments to those of the taste or fancy—we would secure both; and he who is most successful in obtaining the one, is most likely to secure the other. Let every farmer, therefore, appropriate a liberal allowance of ground for a front-yard to his house. It should be expansive enough to permit the execution of a regular design, in laying out the lines for walks, groves, rows of trees, shrubbery and flowers. It should be handsomely graded, sloping downwards from the house, in front and on each hand. Set it in blue grass, and of course enclose it by a neat, substantial paling or fence, painted white. In the selection of the trees, shrubbery and flowers, consult the taste of your "better half;" and don't spare any expense she may require, in order to gratify her taste. If she even fancies exotics, send abroad for them, though we should like to see our native botany more appreciated; for be assured, every tree, shrub or flower, will give you and your family a joy and gladness more exquisite than any derivable from the sordid enjoyments of wealth. A taste for trees and plants and flowers, is the love an enlightened mind and a tender heart pays to nature; it is a peculiar attribute of woman, exhibiting the gentleness and purity of her sex; and every husband should encourage it; for his wife and daughters will prove wiser, and happier and better, by its cultivation. Who does not venerate and love some tree, or rose or honeysuckle, planted, it may be, by the hand of some absent or departed mother, or sistor, or brother? and who would not protect them with a holy reverence, as mementoes of a hallowed love as well as contributors to the gratification of an elegant taste? The writer remembers well, the vine planted by his mother's own hand, when he was a little child. Its tendrils now cling to the topmost branches of a tall tree in the front yard; and he never revisits the scene of his childhood, without gratifying some of the holiest emotions of his nature by sitting under its shelter and recalling the earliest and happiest associations of his life. And there too, clinging about the columns of the porch, is the coral honeysuckle, shading the evening window, with its rich and delicate clusters of flowers; and at every footstep along the border, are the many-hued flowers, planted by a sister. And there also, along the line of the enclosure, are the rows of peach, pear, plum, apple, quince and ornamental trees, planted by his own hand, when but a boy. They now, like the writer, who planted them, have grown to maturity. Every year they pay the rich return of delicious fruit or beautful and fragrant foliage and flowers; and every returning summer, as he pays the accustomed visit to the homestead of his youth, he enjoys a rational pleasure in the mere sight of them, infinitely greater than the gratification of the most fastidious palate. It is a great joy, to go to each tree, and as it were, renew an acquaintance begun in the earlier years of our youth and rejoice in the full strength of manhood—'tis the very poetry of a gentle and gladsome and nature-loving heart. And these are modes of enjoyment, which every one should provide for himself and for those who are to come after him.

We have deemed such an article as this, necessary to many of our Kentucky farmers. There are too many of them who sacrifice to a supposed utility, all the enjoyments of which we have spoken. We have known some, plough almost up to the walls on all sides of the house, which seemed to have been taken from some other place, and set down in the midst of a corn field. Such a taste is extremely vulgar.

We have but two or three suggestions further on the subject, leaving to the taste of the farmer, the plan of the improvement we desire all to adopt. The row of trees next the yard fence, should be large forest trees, such as the black locust or elm. The passage from the front to the road, should either be through a woodland pasture or a grass lawn, neither of which should ever be devoted to the plough. Be content with the pleasure and the pasturage afforded by such land—they are profits enough. The woodland pastures of Kentucky, are doubtless more beautiful than the classic groves of Arcadia. Where there is but a lawn in front of the house, the farmer should plant an avenue of trees. For this purpose, we recommend the elm; but the utilarian will prefer the locust, a handsome ornamental tree, indeed, and producing a most valuable timber. But who is the Goth, would think of felling the trees of an ornamental avenue for their *timber?*—none but one thrice steeped in barbarism. The elm, is the finest ornamental tree of our forest. Its venerable trunk, its graceful boughs, its early, rich and beautiful foliage, and its entire freedom from the least appearance of stiffness, should render it the classic favor of the woods. It is surprising, that it is not more prized as an ornamental tree.

We will add but one remark more, fearing our readers may deem the length of his article, an encroachment upon more important topics. Never permit the suggestions of a momentary cupidity, to induce you to graze your front-yard. The grass may look luxurious and tempting; and it may seem "*a sin*" to lose it; but better to mow or shear your yard than to graze it. A cow or horse, will in one hour, destroy the growth of years. Nothing is more provoking, to the man of taste, than to see the trees he has planted, the vines and flowers he has nurtured for years, destroyed as *fodder for beasts.* O, 'tis horribly vulgar.—*Franklin Farmer.*


THE HIGH-BRED TROTTING HORSE

## BELLPORT!

BELLPORT will stand the present season, commencing 1st of May and ending 1st of August, at Clarence Hollow and Batavia. Terms, $15 to insure, payable 1st of January next.

DESCRIPTION.

Bellport was foaled at Long Island, June, 1831, will consequently be seven years old the coming summer, is of a beautiful bright blood bay, with a small star in the forehead, one white foot, and black legs, mane and tail—is within a fraction of sixteen and a half hands high, (65 1-2 inches,) of proportionate girth and length, a well set head, elegant arched neck, full powerful chest, of beautiful smooth symetry of limbs, and yet of great bone and muscle, weighing twelve hundred and forty-seven pounds.

OF HIS PEDIGREE.

It need only be said, that he was got by the Imported Horse Bellfounder, out of Lady Alport, he by the celebrated trotter Old Bellfounder, dam Velocity, by Haphazard, by Sir Peter, out of Miss Henry, by the famous Eclipse, and thus up to the Darley Arabian, the great progenitor of England's stoutest and most beautiful racing stock. Lady Alport was got by Membrina, he by Imported Messenger, dam by Tippoo Saib, &c. &c. For further particulars of which horses see Stud Book.

It will be seen by the above, that Bellport unites the *best* of England's *racing and trotting blood.* Bellfounder at five years old trotted 2 miles in less than 6 minutes, and the following year was matched for 200 guineas to trot 9 miles within 30 minutes, which he won easily. His owner shortly after challenged to perform with him 17 1-2 miles within one hour, which was not accepted. Velocity trotted on the Norwich road in 1806, sixteen miles in one hour; in 1808, trotted twenty eight miles in one hour forty-seven seconds, and has done many other great performances against time. With the exception of Flying Childers, from the same progenitor, Eclipse was undoubtedly the fastest horse ever known. Having *distanced* all competitors, he at last walked over the Newmarket course for the King's plate, and finding nothing hardy enough thereafter to match him, was never again started. Haphazard, Sir Peter, Membrina, Tippoo Saib and Messenger, were among the best horses of their day, and as good stock as England ever produced.

Bellport was bred by T. T. Kissam, Esq. of New-York, and was selected after much care and attention to the subject, for his uniting good blood and limbs to fine action and great substance, qualities so rarely found in the light race horse of the present day. He has stood two seasons in this vicinity, his stock shows fine size and form, and will undoubtedly prove very superior, either for the saddle or harness, and particularly adapted for the heavy roads of Western New-York. His spirited breeder in a letter accompanying him out here, thus speaks of the blood:—"Bellport is from a stock held in high estimation, both in England and in this country. There are several horses here sired by Bellfounder that can trot a mile within 2 minutes and 45 seconds, and could not be bought for $500; one of them could not be had for $1500; it is supposed that he can trot a mile in 2 minutes 35 seconds. This young horse I have never had trained, nor even much practiced; he has a very fine step, and I have not a doubt but he will be able to trot a mile within 3 minutes."

The Farmer will therefore see, that he may reasonably calculate on the best of stock from this source, and it is a matter of no trifling importance to him, whether he shall turn off a colt at from $200 to $500, that has cost no more to be raised than one that will hardly bring from $50 to $80.

Bellfounder is a full brother to Bellport, one year older, marked as above, his color simply a shade or two darker, and is half a hand less in height. He is a horse of admirable finish, and with a partial trial under the saddle the year he was 5 years old, easily trotted over the Harlem Course (a few feet short of a mile) in 2 minutes 45 seconds, and it is the opinion of his trainer, that notwithstanding the difficulty of curbing so high spirited a horse to a trot, that upon a second and more thorough trial, he could be given as fast a foot as ever graced the trotting course of America. He will probably stand the ensuing season on the Niagara River road, two miles below Black Rock.

Either of the above horses will be sold, or exchanged for other stock at a fair price, or hired to a responsible person for any part of the country.

For further particulars refer to L. F. ALLEN or A. B. ALLEN. of Buffalo.

HENRY GORDON.

March 10, 1838.


### Dr. BEEKMAN'S ADDRESS.

The following is the Address of the President of the New-York State Agricultural Society, delivered at their annual meeting on the 2d Feb. 1838.

GENTLEMEN:—Having been selected by your partiality, more than my fitness, to fill the office of president of this society for the last year, it is made my duty at the expiration of the term to address you. In doing so, I could wish to make it more than a simple matter of form. Were my abilities equal to my inclination, I would throw around the great subject we have met to discuss and improve, the most captivating eloquence, and the most convincing argument. But, gentlemen, I make no pretensions to the first; and, being a farmer by choice, if I can impart any interest to my subject, it is in the lessons I have drawn from my own practical observations in husbandry.

On an occasion like this, two years since, we were favored with an address from a most worthy and liberal minded member of this society, but who is now no more, on the necessity of educating our young men for farmers, and thus to make them more fully appreciate the responsibilities they owe to the advancement of their profession, to their conntry, and to society. On a similar occasion last year, the subject selected for our consideration was, a history of agriculture from the earliest time until that period. Both were topics important and interesting, and peculiarly calculated to awaken our attention, deepen our impressions, and make us better and wiser men. I could wish to impart an equal interest to the subject I have chosen; and that is, what ought to be the next step in the farther improvement of agriculture.

All who hear me will doubtless agree with me, that as husbandry was the first instituted, so it is still the most important pursuit of man, and therefore, whatever tends to its improvement, is another advance towards the attainment of a common blessing. All will likewise concede, that ours has heretofore been more a laboring of the hands, than the head; and that, whilst we have literally fulfilled the command to "earn our bread in the sweat of our brows," we have not opened the sources of knowledge, and called science, which has shed so much light upon other subjects, to the aid of labor, but have been willing to plod on content, in too many instances, with the annually reduced pittance we have gleaned from the soil. But, can it be that science, which affords us so much intellectual gratification, and has opened so many fountains of wealth; which has made us more conversant with the innumerable works of the Deity, and enlarged both our enjoyment and capacity ten thousand fold—can it be that she is forbid by the farmer to enter his domain, lest she should teach him lessons that may mortify his pride, or alarm his prejudice? Or will he assume the ground that agriculture cannot be improved; that we have arrived at a point beyond which the products of the soil cannot be increased, and we must be content with our husbandry as it is; that farther innovation cannot advance it; and that however much the mind has done for other pursuits, ours admits of no deeper research nor clearer investigation? Gentlemen, could I be persuaded to adopt this opinion, I would erase my name from the roll of the members of this society; for to me the great charm of agriculture is the hope of its advancement. I cannot think that a God of infinite wisdom, who gave the immortal mind to man, with powers to look into the world around and above him, and by his intellect to make all in the universe subservient to his interest or his wants—has decreed, that in the cultivation of the soil, which contributes so largely to his support and happiness, man is forever to follow only the dictates of instinct, and not the lights of reflection and reason. No. Our mental faculties are the noblest part of our creation; they give us command over the beasts of the field and the fowls of the air; they enable us to comprehend and know God as the Author of our existence, and the giver of our bounties; and it is the improvement of them only that can make us acceptable in the sight of Him, who is himself both omnipotent and omniscient. The brute may perish, and the works of our hands crumble by time, and be lost in the lapse of ages; but the immortal mind, enlightened by the study of the past, and looking with hope to the future, stretches forth her sleepless energies to understand creation as it is, and ultimately take home with her the sublime pleasure that the acquisition of knowledge has imparted. Cannot then the mind be made to operate upon the stubborn soil, to make her more abundantly yield her increase? Most assuredly it can; if we but call to our aid all the light which science has shed, and is sheding, and diligently and systematically apply it, our calling will not lag behind other avocations in the steady march in improvement.

When we take a view of the works of Deity, we are lost in astonishment at the comprehensiveness of the mind that conceived, the power that created, and as far as we can follow them, the beautiful and exact laws that regulate and control the whole machinery of animate and inanimate nature. We see *order*, the first law, the great

law that governs equally the movements of the world, or the formation of the most insignificant insect. If we go farther, we see it is given to finite man, when he makes one branch of the works of the Almighty a subject of study and reflection; if he first looks back and sees how far others have gone, compares their ideas with his own; takes constant advantage of the thousand arguments that nature is beautifully and daily unfolding to his view—if he arranges his materials and gives a systematic operation to all his movements and thoughts, persevering in his plan, and never doubting of ultimate success,—we see him at last bring order out of confusion, and what was before slighted because it was not understood, now becomes of importance as we are made acquainted with its uses. It is to labors like these, that we are indebted for our knowledge of astronomy, chemistry, geology, botany, languages, &c. &c. and all the advances in the sciences and arts that contribute so much to the happiness and intelligence of civilized man. But to an uncultivated intellect, that does not avail itself of the labors of the past; where the mind has not been expanded by reading and reflection; whose notions are of one kind to-day, of another kind to-morrow; where conjecture supplies the place of arranged facts, and prejudice is a bar to a just elucidation of the laws of reason and nature; where all is crude, confused and mixed up—the good with the bad, the useful with the useless, sense with nonsense, and reason with folly—and united, too, as they are, with a boastful desire to give opinions to the world, as the emanation of reason, and the clear results of a long experience; what else must follow, but that darkness will continue to cover the land, and gross darkness the people. These last observations apply with a peculiar force to the past and present state of our farming operations. Although we have cultivated the earth for thousands of years, we have yet no arranged system of action, and the beautiful law of order, which God has stamped upon this as one of his works, we do not yet understand; for we have not yet learned to reason from cause to effect. To be sure we sow in spring and reap in autumn, and gather into barns to supply our wants, and those of our flocks. But did not our father Jacob do so? did not the patient Job do so? and likewise Boaz, the kind-hearted husband of Ruth, at least five thousand years ago? And what has been done for the advancement of agriculture, between these generations and ours? It is a fact, gentlemen, that something like improvement in farming has taken place only within the last fifty years. It commenced in England and Scotland, and these countries have for some time experienced the benefits of what they call their improved husbandry. Within that time they have doubled their products, but in one important point they have a manifest advantage over us; that is, they can employ three hands as cheap as we can one, and have their board in the bargain. Still, although much has been done there to increase the products of the earth, yet, in my humble conception, radially and permanently to improve, they must adopt another and better plan, and instead of raising farmers by instinct, they must be reared by education. Instead of a man of any age turning farmer, and at once ignorantly triumphing in his success, and boasting of his knowledge, he must be taught by a dear-bought experience, that he has undertaken a business he does not understand, because he cannot compete with one who in early youth has had his mind expanded by both scientific and practical culture.

We have all seen the absolute necessity that the lawyer, the physician, the manufacturer, and the artizan, should go through a regular course of study, reflection and practice, to fit them for the proper discharge of their respective duties. Think you that in the noble science of farming—for science I will call it—less of education, study and reflection are necessary? No, gentlemen. Depend upon it, if we are to place husbandry upon a stable basis—if we wish to see this broad and fertile land covered with the habitations of plenty, and containing a happy and prosperous people, we must give an early direction to the human mind, to enable it to comprehend and fully grasp the subject. We must come back to elementary principles, and ascertain the different ingredients of which the earth is composed; we must understand their structure, combination, and uses, and what acts upon each with most effect for the benefit of man. These are studies sufficient to engage the undivided attention from early life to its close: and even if we should fail in our first attempts, still we would ultimately place husbandry upon so firm a basis, that nothing would be wanting to secure the full fruition of our labor, but the smiles of a beneficent Providence. To accomplish these desirable objects, a young man must first have a good school education; he must then be taught chemistry, geology, and botany; have a knowledge of mathematics, and perhaps mineralogy, with so much of entomology as is necessary to guard against the mischievous effects of insects. These are some of the hand-maids to the knowledge of agriculture, which, to insure success, must be carefully cultivated.

To lay the foundation in early life for an agricultural education, what would be so useful as an agricultural school, where not only these, but many other collateral branches would be taught, and from which, if a young man graduated, it would prepare him not only for usefulness in life, but accomplish him as a man of science and a gentleman. It would open his mind to view agriculture in a different light from the generality of farmers. He would understand how cause operated to produce effect, and how he could give most efficiency to his labors. From mathematics, the science which contemplates whatever is capable of being numbered or measured, it would lead him to a correct knowledge of practical mechanics, the application of the principles of power and land mensuration. From chemistry, the science which enables us to discover the peculiar properties of all natural bodies, either in their simple or compound state, he would learn to analyze the different kinds of soil, ascertain wherein they differ—what combinations are the most useful, and, if possible, in what the principles of fertility consist, and what must be added or taken away to make barren or degenerate land more productive. The doctrine of manures cannot be understood without a knowledge of chemistry; and it is a subject so extensive in its application to farming purposes, that it must be the A, B, C, of the farmer's education. Geology, and, if necessary, mineralogy, would teach him to discriminate between the different kinds of substances the earth is composed of, and give him a correct knowledge, not only of what the surface of the soil consists, but what is buried beneath it. Botany, the science of plants, or that part of natural history that relates to vegetables, would teach him to ascertain their different uses—discriminate the exhausting plants from those that are less so—the locations most favorable to their growth—the seasons for their production and reproduction—their laws of generation—the alternation that ought to be observed for the best development of their powers, so that whatever plant was cultivated, it would be the best and most valuable of its kind. These are some few of the studies, upon which we have entered somewhat into detail, that should be taught in such an institution. The mind, however, would not only be regulated and instructed, but habits established quite as useful to the full development of the bodily powers. Would nothing, think you, be gained by instilling principles of virtue, of regularity and order—by forming habits of industry, teaching a correct moral deportment, and discountenancing idleness and vice? Permit me here to particularize and point out in a single instance the benefits that would follow the adoption of one simple rule—that is, keeping farm accounts—entering the debtor and creditor account of the farm, and making out an exact statement of its profit and loss. Or you may go farther, that of each lot and each animal. If you ask what special benefit would flow from the practice, I answer, you can at once calculate the relative value of your farm, either in whole or part—the expenses of its cultivation,—the annual cost of your household—the profit on each lot or animal, and as a general result determine whether you are gaining money or losing it. If making, to continue; if losing, to quit before bankruptcy follows. Besides you may graduate your family expenses by it, and at one glance you may ascertain your exact standing in a pecuniary point of view in the community. Why does a merchant keep his accounts but to regulate his business by striking his balances? Ought not the farmer to be equally particular? The time will come when he too will make his regular daily entries as necessary to the successful prosecution of his business.

We have dwelt on this one item, simply as an elucidation of the general argument in favor of education; but suppose, to quote the language I have used on a former occasion, a State Agricultural School, under a proper course of instruction, to contain two hundred students, and a course of studies to last three years. It would send each year, after the termination of the third, nearly seventy young men, so educated into the different sections of our state. Their knowledge of theoretical and practical farming would be gradually diffused; and continue this number for many successive years, it would give thousands of the best farmers, scattering them through every portion of the state. And here let me ask, who is so much of a skeptic as not to believe, that agricultural knowledge would be increased by so great an accession; and, in consequence, agricultural products be prodigiously multiplied? But, this is not all; our school would not only send her missionaries of intelligence and industry through this state, but all her operations—so far as competent professors could discharge their duty of instructing or experimenting—of collecting, comparing and examining all that was most familiar or rare—ornamental, useful, or profitable, in each of their peculiar departments—in a short time we would have a farm and collection, which would vie in extent and appearance, and much exceed in usefulness, the far-famed gardens of London or Paris. Probably at no time in the history of our state, could an agricultural school be founded under as favorable auspices for ultimate success, as at present. By the establishment of agricultural journals, a taste for that kind of reading has been created; our citizens are alive to farther improvements, for they have heretofore felt the want of them. The efforts made and making to give a more thorough school education to our population—the ability of our citizens to contribute whatever may be required to carry the object into effect—the easy transmission of produce through every portion of our state by our rivers, roads, canals and rail-ways—the facility of communication with New-York, one of the best markets in the world, all are so many aids to the successful completion of the plan.

Should this school go into operation, and carry out the great principles of its founders, the time will, must come, when every citizen will be proud of it as a state institution; when those who have been its friends, will gladly come forward and claim the honors to which they will be entitled, and the present state authorities will take a pride to date its commencement as coeval with their administration of power; for, besides being a test farm systematically managed, its manufacture and collection of the various farm implements, its specimens of geology, mineralogy, and botany; the exhibition of its animals; the order and regularity of all its operations in husbandry; the circulation amoung our farmers of useful intelligence collected there, either from practice or experiment; the aids it will give to our agricultural journals, and above all, the young men it will will yearly send out to every portion of our country to vivify by their intelligence, and fructify by their industry, whatever place they settle in; will be so many claims to popular favor, for they will be constant and living evidences of its great usefulness.


## Spring Wheat.

JUST received at the Rochester Seed Store, a further supply of genuine *Italian* and *Bald Siberian* Spring Wheat, both of which are highly recommended and of superior quality.

REYNOLDS & BATEHAM.

Feb. 17. 1838.

## To Agriculturists and Others,

THE subscriber, being just returned from England, made such arrangements whilst there as will enable him to import any quantity of the different breeds of Sheep, Cattle and Hogs, in that country. Those persons who wish to get Imported Stock, will be able to do so by applying, if by letter, post paid, to

JOHN COWLEN,

*Jan.* 6, 1838. *Tully, Onondaga county, N. Y.*

N. B.—The passage money only will be required previous to their arrival in New York.

## Seeds for 1838.

JUST arrived at the Rochester Seed Store, a large importation of English Field and Garden Seeds, of the growth of 1837; shipped from London this fall expressly to our order, and comprising a full assortment of the choicest kinds, such as

| | | |
|---|---|---|
| Cabbage, | Ruta Baga, | Rye Grass, |
| Cauliflower, | Mangel Wurtzel, | White Dutch |
| Brocoli, | Sugar Beet, | Clover, |
| Radish, | Lucern, | &c., &c. |
| Turnep, | Trefoil, | |

These Seeds are from one of the best establishments in Europe, and the perfect satisfaction which they have hitherto given, is sufficient guarantee of their character.

Dealers and others supplied at wholesale on very favorable terms. nov18tf REYNOLDS & BATEHAM.

## Fruit Trees for Sale.

THE subscriber respectfully informs his friends and the public that he has for sale at his Nursery in Rochester, Monroe county, state of New York, a large quantity of Fruit Trees, grafted and innoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms. SAMUEL MOULSON.

apr 15-tf

N. B. CASH will be paid for a few thousand two years old APPLE TREES

## Monroe Horticultural Garden & Nur-

SERIES, GREECE, MONROE CO., N. Y.

THIS establishment now comprises over 20 acres, covered compactly with Trees and Plants in the different stages of their growth.

The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, splendid Pæonies, Double Dahlias, &c. &c.

Also, a large collection of Green House Plants, of choice and select varieties, in good condition.

Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired delivered on the canal one mile from the Nursery, or at Rochester.

Orders for Mr. Rowe's Nursery received by the publisher of this paper.

Catalogues will be sent to every applicant gratis, or may be had by calling at the office of the Genesee Farmer.

April 1, 1837. ASA ROWE.